NASA IV&V Space Flight Design Challenge

Goal:

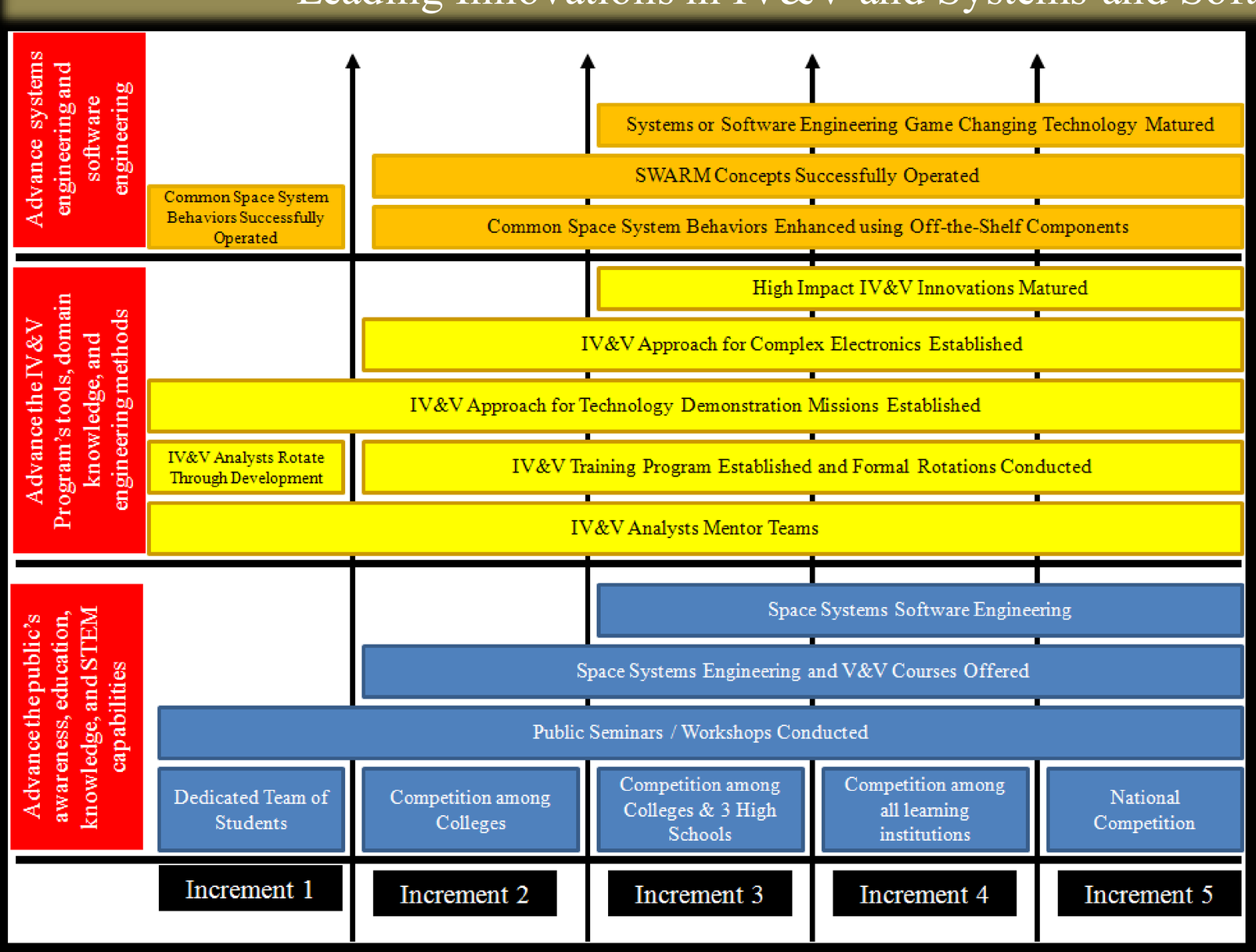
1. Advance education, knowledge, and Science, Technology, Engineering, and Mathematics (STEM) capabilities, as applied to space systems.
2. Advance the IV&V Program's tools, domain knowledge, and engineering methods
3. Advance the disciplines of systems engineering and software engineering by exploring game changing technologies for NASA

Mission: OC-Flight-1
First Flight: Summer 2012

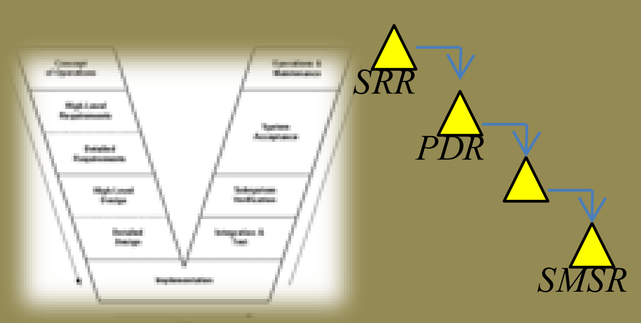
Design: Microsatellites + OTS Components

IV&V Space Flight Design Challenge

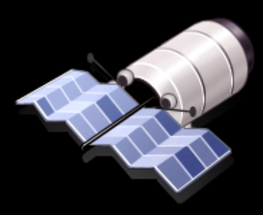
Leading Innovations in IV&V and Systems and Software Engineering



Teams of Student and NASA IV&V Engineers



NASA engineering life cycle



- Multiple spacecraft & SWARM Behaviors
- Autonomous software controls
- Autonomous verification
- Intelligent Fault Management
- Reconfigurable FPGAS
- Orbital debris removal
- Structure less systems
- Deployable apertures & grappling devices

Rapid development, multiple flights a year, microsatellites and off-the-shelf components

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